

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**  
**BOARD OF PATENT APPEALS AND INTERFERENCES**

In re

INVENTOR:	Soon-Tae Ahn	)	EXAMINER:	S. Ip
		)		
SERIAL NO.:	10/521,285	)	ART UNIT:	1742
		)		
FILING DATE:	July 3, 2003	)	DATE:	December 3, 2007
		)		
FOR:	Quenched and	)		
	Tempered Steel Wire	)		
	with Superior Cold	)		
	Forging Characteristics	)		

Mail Stop Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**REPLY BRIEF FOR APPELLANT**

This is in response to the Examiner's Answer dated October 3, 2007 and the Supplement dated October 29, 2007.

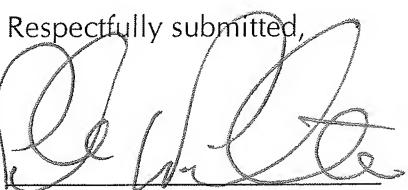
The Examiner has argued that appellant has not substantiated the position that Kanisawa's martensite is transformed and eliminated during or after spheroidizing annealing. Answer, p. 6. However, Kanisawa's Fig. 2(a) shows the martensitic structures of the hot-rolled materials before spheroidizing annealing, while Fig. 3(b) shows the materials after spheroidizing annealing. See, also, Kanisawa column 3, lines 19-28 and column 4, lines 23-51.

As to the presence of martensite questioned by the Examiner (Answer, pp. 7-8), appellant's claim 1 specifically recites that the structure does have a martensite base (in addition to spheroidized carbides), even if no particular amount is claimed.

Regarding the use and amount of martensite in Kanisawa argued by the examiner (Answer, pp. 7-8), appellant agrees that martensite contains carbon. However, it is the form of the carbon that is in issue. Appellant claims carbon in the form of martensite and precipitated carbides, with the later in the amount of at least 30% spheroidization. Further, since Kanisawa does not disclose any martensite in the final product, the Examiner cannot sustain his burden of proof that the amount is anything other than zero.

As discussed above and in appellant's main brief, Kanisawa's martensitic microstructure and the spheroidized carbide microstructure are "before and after" microstructures. Kanisawa teaches only that one can have a martensite/bainite structure before heat-treating, or in the alternative a spheroidized carbide structure after heat-treating. Since Kanisawa does not disclose or suggest how to achieve both at the same time, the present invention is not obvious to one of ordinary skill in the art.

Reversal of the rejections under 35 USC § 103 on the basis of Kanisawa et al. U.S. Patent No. 6,547,890 is respectfully requested.

Respectfully submitted,  
  
Peter W. Peterson  
Reg. No. 31,867

**DeLIO & PETERSON, LLC**  
121 Whitney Avenue  
New Haven, CT 06510-1241  
(203) 787-0595  
samh100001000reply\_brief.doc